

# Table of Contents

Issue 02-2

Autumn 2002/Winter 2003

---

*Letter from the Directors*..... 3

Guidance for Industry -- Food Producers, Processors, Transporters, and  
Retailers: Food Security Preventive Measures Guidance .....5

Frequently Asked Consumer Questions About Food Safety and Terrorism...13

FSIS Security Guidelines For Food Processors.....15

Pautas de Seguridad para los Procesadores de Alimentos.....21

Keeping Food Safe During An Emergency.....29

Outbreak of Acute Gastroenteritis Associated with Norwalk-Like Virus  
Among British Military Personnel -- Afghanistan, May 2002.....37

*The Reporter is published by the Massachusetts Department of Public Health, Division of Food and Drugs, Food Protection Program and the Division of Community Sanitation. For further information on these and other topics, Food Protection Program staff may be reached by calling 617-983-6712 and Division of Community Sanitation staff may be reached by calling 617-983-6762.*

*This publication is sent to all Boards of Health in the Commonwealth. It is requested that a copy be circulated to all board members and interested employees. Other interested individuals and agencies may request a copy by contacting the Editor.*

*Please address all correspondence to: Joan L. Gancarski, Editor; The Reporter; Division of Food and Drugs; Massachusetts Department of Public Health; 305 South Street; Jamaica Plain, MA 02130, Telephone: 617-983-6764, e-mail: [joan.gancarski@state.ma.us](mailto:joan.gancarski@state.ma.us), or FAX: 617-983-6770 ❖*

# Letter from the Directors:

Paul J. Tierney, Division of Food and Drugs, Food Protection Program  
Howard S. Wensley, M.S., C.H.O., Division of Community Sanitation



Since Spring 2002, the Division of Food and Drugs Food Protection Program and the Division of Community Sanitation have continued to fulfill their missions despite the on-going fiscal crisis. We continue to complete inspectional regulatory requirements; respond to citizen, industry and community concerns and complaints; and undertake additional duties associated with bioterrorism.

Recently, the Food Protection Program (FPP) began developing vulnerability assessment evaluation tools for wholesale food manufacturers and distributors. At present, the FPP is piloting the food security survey as well as an educational brochure which may be used by food companies to assist in evaluations of food security. Both tools will be finalized and in the field in late autumn.

In June 2002, a public hearing was convened to receive comments on the proposed changes to 105 CMR 570.000, *The Manufacture, Collection, and Bottling of Waters and Carbonated Nonalcoholic Beverages*. Comments received at the public hearing were considered and incorporated into the regulation that has been approved by the Public Health Council, and is pending the Secretary of State's Office promulgation.

In June 2002, a final draft of proposed revisions to 105 CMR 561.000, *Frozen Desserts and Frozen Dessert Mixes* was completed. The June draft incorporates new enforcement actions and sanitation standards as well as recommendations and refinements. A public hearing on the regulation will be held in November 2002.

Two initiatives begun by the FPP in Autumn 2001 have been notably successful.

- In conjunction with the Massachusetts Department of Public Health (MDPH) Division of Communicable Disease, the FPP was awarded a CDC (U.S. Centers for Disease Control and Prevention) grant to improve the ability of local boards of health to conduct foodborne illness surveillance. A component of the grant includes the creation of guidelines as well as the development and training for foodborne illness investigations.

During Summer 2002, the evaluations of a May pilot training program were reviewed, and the first two-day program for the training of local health agents was presented in October 2002. In the next six months three additional training programs will be presented in conjunction with MHOA (Massachusetts Health Officers Association).

- As earlier reported, the FPP received an Innovative Food Safety Grant from the U.S. FDA. The goal of the grant is to develop standardized instructions for local and state retail food regulators in the initiation, evaluation and verification of HACCP and risk-control plans in retail food establishments.

In September 2002, a second training pilot program, "Validation and Field Verification of HACCP and Risk Control Plans in Retail Food Establishments" was offered. Twenty representatives from local boards of health participated.

By the close of the federal fiscal year, September 30, the FPP completed an FDA contract requiring the completion of 152 FDA-regulated food establishment inspections, and an FDA contract to collect 12 samples of Massachusetts fresh produce and seafood for pesticide analysis.

Through an EPA grant, the Department will be able to assist marine communities in picking up some of the cost of their beach testing. The Department released a "Request for Response" from laboratories capable and willing to conduct marine bathing water for the Enterococci. The only viable responses were from laboratories covering Barnstable County. Another RFR will be released prior to the next bathing season to hopefully obtain the services of other laboratories to cover the remainder of the coastline.

The annual Beach Report, compiled and written by the DCS, is completed, and available on the Division website: [www.state.ma/dph/dcs](http://www.state.ma/dph/dcs)

In the last several months, the DCS has undertaken a "retention of records" project. Working with local boards of health and the Secretary of State's Office, the DCS will review the current chapter within the Guidebook for Local Boards of Health, and make appropriate changes. By Spring 2003, class sessions will be offered to local agents about record review, retention, and disposal.

During Winter 2003, an advisory committee will be assembled to review, 105 CMR 410.00, *Minimum Standards of Fitness for Human Habitation*. This updating of Chapter II of the State Sanitary Code is anticipated to take 18-24 months of work.

Luisa Siniscalchi, Senior Food and Drug Inspector of the FPP Retail Food Unit, completed all requirements of FDA standardization for retail inspections.

John Racioppi, Senior Food and Drug Inspector of the FPP Seafood Unit, completed all requirements, including tests, and was certified as a Standardized State Shellfish Plant Inspector. Sean Bowen, acting Supervisory Inspector of the Seafood Unit, completed all requirements, including tests, and was certified by the FDA as the State Shellfish Standardization Officer. Recently retired Supervisory Inspector, Walter Hohmann rejoined the FPP on a part-time basis to assist the Seafood Unit.

After more than nine years with the Food Protection Program, Daniel McPartlin, Supervisory Inspector of the Food Processing Unit resigned during the Summer 2002, to accept a position within the federal Bureau of Alcohol, Tobacco, and Firearms. ★

# Guidance for Industry

## **Food Producers, Processors, Transporters, and Retailers: Food Security Preventive Measures Guidance**

<http://www.cfsan.fda.gov/~dms/secguid.html> Accessed: July 30, 2002

**U. S. Food and Drug Administration  
Center for Food Safety and Applied Nutrition  
January 9, 2002**

**This guidance represents the Agency's current thinking on appropriate measures that can be taken by food establishments to minimize the risk of food being subjected to tampering or criminal or terrorist actions. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. This guidance is being issued in accordance with FDA's Good Guidance Practices regulation (21 CFR 10.115; 65 FR 56468; September 19, 2000).**

This guidance is designed as an aid to operators of food establishments (i.e. firms that produce, process, store, repack, relabel, distribute, or transport food or food ingredients or that prepare or distribute food at retail). It identifies preventive measures that they can take to minimize the risk that food under their control will be subject to tampering or criminal or terrorist actions. It is relevant to all sectors of the food system (i.e., from farm-to-table), including farms, aquaculture facilities, fishing vessels, producers, transportation operations, processing facilities, packing facilities, warehouses, and retail and food-service establishments. Operators of food establishments are encouraged to review their current procedures and controls in light of the potential for tampering or criminal or terrorist actions and make appropriate improvements. This guidance is designed to focus operators sequentially on each segment of the farm-to-table system that is within their control, to minimize the risk of tampering or criminal or terrorist action at each segment. Implementing enhanced preventive measures requires the commitment of management and employees to be successful and, therefore, both should participate in their development and review.

This guidance is divided into seven sections that relate to individual components of a food establishment operation: management of food security; physical security; employees; computer systems; raw materials and packaging; operations; and finished products. It also covers security strategies and evaluation of the security system. Not all of the guidance contained in this document is appropriate or practical for every food establishment. Operators should review the guidance in each section that relates to a component of their operation, and assess which preventive measures are suitable for their operation. A process called Operational Risk Management (ORM) may also help operators prioritize the preventive measures that are most likely to have the greatest impact on reducing the risk of tampering or criminal or terrorist actions against food under their control (See: Food Safety and Security: Operational Risk Management Systems Approach, November 26, 2001; [www.cfsan.fda.gov](http://www.cfsan.fda.gov)).

## **Food Establishment Operations:**

### **Management of food security**

Food establishment operators should consider:

#### Security procedures

- assigning responsibility for security to qualified individual(s)
- encouraging all staff to be alert to any signs of tampering with product or equipment, other unusual situations, or areas that may be vulnerable to tampering, and alerting identified management about any findings (e.g., providing training, instituting a system of rewards, building into job performance standards)

#### Investigation of suspicious activity

- immediately investigating all information about suspicious activity
- alerting local law enforcement about all suspected criminal activity

#### Supervision

- providing an appropriate level of supervision to all employees, including cleaning and maintenance staff, contract workers, data entry and computer support staff, and especially new employees
- conducting daily security checks of the premises for signs of tampering with product or equipment, other unusual situations, or areas that may be vulnerable to tampering

#### Mail/packages

- implementing procedures to ensure the security of incoming mail and packages (e.g., securing mailroom, visual or x-ray mail/package screening)

### **Physical facility**

Food establishment operators should consider:

#### Visitors

- inspecting incoming and outgoing vehicles for suspicious, inappropriate or unusual items or activity
- restricting entry to the establishment (e.g., checking in and out at security or reception, requiring proof of identity, issuing visitors badges - collected upon departure)
- ensuring that there is a valid reason for the visit before providing access to the facility - beware of unsolicited visitors
- restricting access to food handling and storage areas (e.g., accompanying visitors, unless they are otherwise specifically authorized)
- restricting access to locker rooms
- applying the above procedures to everyone, including contractors, supplier representatives, truck drivers, customers, couriers, third-party auditors, regulators, reporters, visitors, etc.

#### Physical security

- protecting perimeter access with fencing or other appropriate deterrent
- securing doors (including freight loading doors), windows, roof openings/hatches, vent openings, trailer bodies, tanker trucks, railcars, and bulk storage tanks for liquids, solids, and compressed gases, to the extent possible (e.g., using locks, "jimmy plates," seals, alarms, intrusion detection sensors, guards, monitored video surveillance [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])
- using metal or metal-clad doors to the extent possible, especially when the facility is not in

operation (remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes)

- minimizing the number of entrances to restricted areas (remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes)
- accounting for all keys to establishment
- using security patrols (uniformed and/or plain-clothed) and video surveillance, where appropriate
- minimizing places that could be used to hide temporarily intentional contaminants (e.g., minimizing nooks and crannies)
- providing adequate interior and exterior lighting, including emergency lighting
- implementing a system of controlling vehicles authorized to park on the premises (e.g., using placards, decals, key cards, cypher locks)

#### Laboratory safety

- restricting access to the laboratory (e.g., using key cards or cypher locks [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])
- restricting laboratory materials to the laboratory, except as needed for sampling or other appropriate activities
- restricting access (e.g., using locks, seals, alarms, key cards, cypher locks) to sensitive materials (e.g., reagents and bacterial, drug, and toxin positive controls)
- assigning responsibility for integrity of positive controls to a qualified individual
- keeping track of reagents and positive controls
- investigating missing reagents or positive controls or other irregularities outside a pre-determined normal range of variability immediately, and alerting local law enforcement about unresolved problems, when appropriate

#### Storage and use of hazardous chemicals (e.g., cleaning and sanitizing agents, pesticides, processing aids)

- securing storage areas for hazardous chemicals (e.g., using locks, seals, alarms, intrusion detection sensors, guards, monitored video surveillance [remember to consult any state or local fire codes that may apply before making any changes])
- limiting access to storage areas for hazardous chemicals (e.g., using key cards or cypher locks [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])
- keeping track of hazardous chemicals
- investigating missing stock or other irregularities outside a pre-determined normal range of variation and alerting local law enforcement about unresolved problems

## **Employees**

Food establishment operators should consider:

### **Pre-hiring screening**

- screening employees (e.g., obtaining and verifying work references, addresses, and phone numbers)
- checking immigration status with U.S. Immigration and Naturalization Service, when appropriate
- performing criminal background checks, including Federal Bureau of Investigation Watchlist (remember to consult any state or local laws that may apply to the performance of such checks)
- applying these procedures to all employees, to the extent possible, including seasonal, temporary, contract, and volunteer employees

### **Daily work assignments**

- knowing who is and who should be on premises, and where they should be located
- being specific to shift
- keeping information updated

### **Identification**

- establishing a system of positive identification and recognition (e.g., issuing photo identification badges with individual control numbers, color coded by area of authorized access)
- collecting the retired identification badge when an employee is terminated, either voluntarily or involuntarily

### **Restricted access**

- limiting access so employees enter only those areas necessary for their job functions (e.g., using key cards or cypher locks to sensitive areas, color-coded uniforms [remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes])
- changing combinations and/or collecting the retired key card when an employee is terminated, either voluntarily or involuntarily, and additionally as needed to maintain security
- reassessing levels of access for all employees periodically

### **Personal items**

- restricting personal items allowed in establishment
- preventing workers from bringing personal items (e.g., lunch containers, purses) into food handling areas
- establishing policy and providing for regular inspection of contents of employee lockers (e.g., provide metal mesh lockers, company-issued locks), bags, and vehicles when on company property

### **Training in food security procedures**

- providing food security training to all new employees, including information on how to prevent, detect, and respond to tampering or criminal or terrorist activity
- providing periodic reminders of the importance of security procedures
- ensuring employee buy-in (e.g., involving employees in food security planning, demonstrating the importance of security procedures to the employees themselves)
-

### Unusual behavior

- watching for unusual behavior by new employees or workers (e.g., workers who stay unusually late after the end of their shift, arrive unusually early, access files/information/areas of the facility outside of the areas of their responsibility; remove documents from the facility; ask questions on sensitive subjects; bring cameras to work)

### Computer systems

Food establishment operators should consider:

#### Access

- restricting access to computer process control systems and critical data systems to those with appropriate clearance (e.g., using passwords, firewalls)
- eliminating computer access to past employees immediately upon voluntary or involuntary termination
- establishing a system of traceability of computer transactions
- reviewing the adequacy of procedures for backing up critical computer-based data systems
- validating the computer security system

### Raw materials and packaging

Food establishment operators should consider:

#### Suppliers

- using only known, appropriately licensed or permitted (where applicable) sources for all ingredients, compressed gas, packaging, and labels
- taking steps to ensure that suppliers and transporters practice appropriate food security measures (e.g., auditing for compliance with food security measures that are contained in purchase and shipping contracts or letters of credit)
- authenticating labeling and packaging configuration in advance of receipt of shipment
- inspecting incoming ingredients, compressed gas, packaging, labels, and product returns for signs of tampering (e.g., abnormal powders, liquids, or odors) or counterfeiting (inappropriate product identity, labeling, product lot coding or specifications), where appropriate
- evaluating the utility of testing incoming ingredients, compressed gas, packaging, labels, and product returns for detecting tampering or criminal or terrorist activity
- requesting locked and sealed vehicles/containers/railcars, obtaining the seal number from the supplier, and verifying upon receipt - make arrangements to maintain the chain of custody when a seal is broken for inspection by a governmental agency
- establishing quarantine and release procedures
- reconciling the amount received with the amount ordered and the amount listed on the invoice and shipping documents, taking into account any sampling performed prior to receipt
- supervising off-loading of incoming ingredients, compressed gas, packaging, labels, and product returns
- alerting local law enforcement about evidence of tampering or counterfeiting
- keeping track of ingredients, compressed gas, packaging, labels, salvage products, rework products, and product returns
- investigating missing or extra stock or other irregularities outside a pre-determined normal range of variability and reporting unresolved problems to local law enforcement, when appropriate

- destroying outdated or discarded product labels

## **Operations**

Food establishment operators should consider:

### **Security of water**

- securing water wells, hydrants, storage and handling facilities
- ensuring that water systems and trucks are equipped with backflow prevention
- testing for potability regularly, as well as randomly, and being alert to changes in the profile of the results
- chlorinating water systems and monitoring chlorination equipment
- maintaining contact with the public water provider to be alerted to problems
- identifying alternate sources of potable water (e.g., trucking from an approved source, treating on-site or maintaining on-site storage)

### **Security of plant air**

- securing access to air intake points for the facility, to the extent possible (e.g., using fences, sensors, guards, video surveillance)
- examining air intake points for physical integrity routinely

## **Finished Products**

Food establishments should consider:

### **Security of finished products**

- keeping track of finished products
- investigating missing or extra stock or other irregularities outside a predetermined normal range of variation and alerting local law enforcement about unresolved problems, when appropriate
- ensuring that public storage warehousing and shipping (vehicles and vessels) practice appropriate security measures (e.g., auditing for compliance with food security measures that are contained in contracts or letters of guarantee)
- performing random inspection of storage facilities, vehicles, and vessels
- requesting locked and sealed vehicles/containers/railcars and providing the seal number to the consignee (remember to consult any relevant federal, state or local fire or occupational safety codes before making any changes)
- advising sales staff to be on the lookout for counterfeit products during visits to customers and alerting management if any problems are detected
- evaluating the utility of finished product testing for detecting tampering or criminal or terrorist activity
- monitoring closely the serving of foods in open display areas (e.g. salad bars, open bulk containers)

## **Security Strategies**

Food establishment operators should consider:

### **Response to tampering or criminal or terrorist event**

- having a strategy for triaging the event
- planning for emergency evacuation, including preventing security breaches during evacuation
- identifying critical decision-makers
- identifying management that employees should alert about potential security problems
- identifying 24-hour contact information for local, state, and federal police/fire/rescue/

- government agencies
- identifying a media spokesperson
- having generic press statements and background information

#### Recall strategy

- identifying the person responsible, and a back-up
- providing for proper disposition of recalled product
- identifying customer contacts, addresses and phone numbers

#### Additional steps

- maintaining any floor or flow plan in a secure, off-site location
- making employees aware of internal, fire, and police emergency phone numbers
- becoming familiar with the emergency response system and the Emergency Command Center operations in the state in which the facility is located
- making employees aware of the company officials to alert about potential security problems, and where they can be reached
- 

### **Evaluation:**

Food establishment operators should consider:

#### Evaluation program

- evaluating the lessons learned from past tampering or terrorist events
- annually reviewing and testing the effectiveness of strategies (e.g., conducting mock criminal, terrorist or tampering event and mock recall, challenging computer security system) and revising accordingly - using third party or in-house security expert
- performing routine and random food security inspections of facility (including receiving and warehousing areas and intrusion detection system) - using third party or in-house security expert
- verifying that security contractors are doing an adequate job

### **Emergency Point of Contact:**

U.S. Food and Drug Administration  
5600 Fishers Lane  
Rockville, MD 20857

If a food establishment operator suspects that any of his/her products that are regulated by the FDA have been subject to tampering or criminal or terrorist action, he/she should notify the FDA 24-hour emergency number at 301-443-1240 or call their local FDA District Office. FDA District Office telephone numbers are listed at [http://www.fda.gov/ora/inspect\\_ref/iom/iomoradir.html](http://www.fda.gov/ora/inspect_ref/iom/iomoradir.html). The operator should also notify local law enforcement.

The FDA New England District Office: 781-596-7700.

# Food Security Notes

[illegible]

August 1, 2002

**U. S. Food and Drug Administration  
Center for Food Safety and Applied Nutrition  
November 15, 2001**

## **Frequently Asked Consumer Questions About Food Safety and Terrorism**

### **What is the Food and Drug Administration (FDA) doing to protect the food supply against terrorism?**

Over the last few years, FDA has worked with food safety agencies at federal, state and local levels to significantly strengthen the Nation's food safety system across the entire distribution chain -- from the farm to the table. The main results of this cooperation -- more effective prevention programs, new surveillance systems, and faster foodborne illness outbreak response capabilities -- have already enabled the agency to protect the safety of our food supply against natural and accidental threats. In addition, since the September 11 attack, FDA has increased its emergency response capability by realigning resources for possible use to counter terrorism, and by reassessing and strengthening its emergency response plans. The agency also continues to work closely with other federal, state, and local food safety authorities and with regulatory agencies abroad to maximize coordination of efforts to protect food and to respond rapidly to evidence of threats to the food supply. All of these provisions and systems can be employed to prevent or respond to a terrorist assault on our food supply.

### **Does FDA cooperate with industry in the defense against food terrorism?**

FDA is working with a broad spectrum of industries that has formed the Food Security Alliance, a group dedicated to strengthening the physical security of industrial food production. With help from the industry, FDA is developing a Food Security Guidance that food producers can use to improve the protection of their products against tampering or terrorist actions. The guide will be primarily focused on the management of food security as it applies to the plant, employees, raw materials, packaging, and finished products.

### **Is anything being done to intensify the FDA surveillance of food imports and food production?**

The Administration has asked Congress for increased FDA resources to build up its food surveillance of both domestic and imported foods through these major actions:

- it will hire 210 additional import inspectors to monitor food as it enters the United States;
- add 100 inspectors to survey points that are critical for product safety in the domestic food production and distribution system;
- add 100 technical analysts to multiply the number of food samples tested for possible contamination.

In addition to a request for increased resources for surveillance, the Administration is seeking further authority to strengthen FDA's oversight of food in the case of an emergency. The increased authority will allow FDA to require information from food producers that will enable the agency to rapidly address possible health hazards by quickly tracing the source and distribution of both domestic and imported food.

**What can consumers do to protect themselves and their families from food tampering or other kinds of food contamination?**

Consumers are the final judges of the safety of the food they buy. The essential step for their protection is to check whether the food package or can is intact before opening it. If it has been damaged, dented or opened prior to purchase, the contents should not be used. Consumers need to be alert also to abnormal odor, taste and appearance of a food item. If there is any doubt about its safety, don't eat it. If the food appears to have been tampered with, report it to one of the authorities listed below.

**What should consumers do if they suspect a food product has been contaminated or tampered with?**

If the suspected food product does NOT contain meat or poultry--such as seafood, produce, or eggs--consumers should notify the FDA 24-hour emergency number at 301-443-1240 or call the consumer complaint coordinator at their nearest FDA District Office. (See list below.)

If the food product DOES contain meat or poultry, call the U.S. Department of Agriculture's Meat and Poultry Hotline at 1-800-535-4555.

**Should consumers take antibiotics for protection against contaminated food?**

Antibiotics should not be taken preventively unless prescribed by a physician. Although antibiotics can be effective against some bacterial contaminants, they are not effective against viruses, chemicals or radiological substances.

**What food handling practices should consumers follow on a day-to-day basis to help prevent foodborne illness?**

Consumers can protect themselves by following basic safe food handling practices:

- Wash all raw food products such as fruits and vegetables before eating them to help eliminate bacteria that may be on the food.
- Wash hands, cutting boards, knives and utensils in hot, soapy water before and after handling each raw food item and before touching another food or a surface that will come into contact with food. This will prevent bacteria from spreading and contaminating other food.
- Separate raw foods such as meat, poultry and seafood from foods that are ready-to-eat.
- Cook foods thoroughly to kill harmful bacteria that may be present.
- Refrigerate foods promptly. Cold temperatures keep most harmful bacteria from growing and multiplying.

**Where can I get more information about food safety?**

For more information about food safety, call FDA's toll free consumer information line at 1-888-SAFEFOOD, or visit the World Wide Web at [www.foodsafety.gov](http://www.foodsafety.gov).

**FDA's Consumer Complaint Coordinator for Massachusetts: 781-596-7700**

# FSIS Security Guidelines For Food Processors

<http://www.fsis.usda.gov/oa/topics/securityguide.htm>

Accessed: August 1, 2002

**May 2002**

Dear Establishment Owner/Operator:

The Food Safety and Inspection Service (FSIS) has prepared the enclosed, *FSIS Security Guidelines for Food Processors*, to assist Federal and State inspected plants that produce meat, poultry and egg products in identifying ways to strengthen their biosecurity protection. FSIS recognizes that inspected plants may also be aware of, and are adopting, guidelines from other government and private sector organizations and agencies. However, businesses or plants that do not have access to specialized security-planning advice should find these guidelines particularly useful as they develop and improve their food security plans.

These guidelines were developed to meet the particular needs of meat, poultry and egg processing plants and to be easily understood and readily adaptable by plant officials. While the guidelines are voluntary and plants may choose to adopt measures suggested by many different sources, it is vital that all food businesses take steps to ensure the security of their operations.

FSIS intends to provide these guidelines to our field employees who will assist in directing plants that seek further clarification or advice. However, inspectors will not mandate adoption of any guideline.

FSIS intends to continue working to enhance guidance to businesses engaged in the production and distribution of USDA-regulated food and to work with Food and Drug Administration (FDA) and other agencies to provide guidance for transportation, storage and handling. Guidelines for inspected establishments are a first step, but we recognize the need for protections from the farm to the consumer's table. We invite your comments as we work to strengthen these steps. Homeland Security for our food and agricultural sector requires a commitment by all parties--Federal, State, local and private. We trust that these guidelines will be useful in giving specific focus to the commitment that we all share.

If you have any questions or comments, please contact our Technical Service Center at 1-800-233-3935.

Sincerely,  
Linda Swacina  
Assistant Administrator for Staff Services

# **FSIS Security Guidelines For Food Processors**

## **FOOD SECURITY PLAN MANAGEMENT**

- A food security management team and a food security management coordinator should be identified for each plant or company. Each member should be assigned clear responsibilities.
- A food security plan using established risk management principles should be developed and implemented. The plan should include procedures for handling threats and actual cases of product tampering and an evacuation plan for each facility.
- Corrective action taken in all cases of product tampering should ensure that adulterated or potentially injurious products do not enter commerce.
- The plan should include the immediate recall of adulterated products from trade and consumer channels. Safe handling and disposal of products contaminated with chemical or biological agents should also be included in the plan.
- A relationship should be established with appropriate analytical laboratories for possible assistance in the investigation of product-tampering cases.
- Procedures for notifying appropriate law enforcement and public health officials when a food security threat is received, or when evidence of actual product tampering is observed, should be detailed in the plan.
- Specially designated entry points for emergency personnel should be identified in the plan.
- Current local, State and Federal Government Homeland Security contacts and public health officials should be listed in the plan. This list should be updated regularly.
- Members of the food security management team should be trained in all provisions of the plan. Drills should be conducted periodically. The plan should be periodically reviewed and revised as needed.
- Food security inspections of the facility should be conducted regularly by plant officials to verify key provisions of the plan.
- All employees should be encouraged to report any sign of possible product tampering or break in the food security system. Consider implementing an award system or establishing performance standards related to food security consciousness.
- All threats and incidents of intentional product tampering should be immediately investigated and reported to the local law enforcement officials and the FSIS/State Inspector in-Charge.
- Liaison with local Homeland Security officials and other law enforcement officials should be pre-established by the food security management team.

## **OUTSIDE SECURITY**

- Plant boundaries should be secured to prevent unauthorized entry. “No Trespassing” signs should be posted.
- Integrity of the plant perimeter should be monitored for signs of suspicious activity or unauthorized entry.
- Outside lighting should be sufficient to allow detection of unusual activities.
- All access points into the establishment should be secured by guards, alarms, cameras or other security hardware consistent with national and local fire and safety codes.
- Emergency exits should be alarmed and have self-locking doors that can be opened only from the inside.
- Doors, windows, roof openings, vent openings, trailer bodies, railcars and bulk storage tanks should be secured (e.g., locks, seals, sensors) at all times.
- Outside storage tanks for hazardous materials and potable water supply should be protected from, and monitored for, unauthorized access.
- An updated list of plant personnel with open or restricted access to the establishment should be maintained at the security office.
- Entry into establishments should be controlled by requiring positive identification (e.g., picture IDs, sign-in and sign-out at security or reception, etc.).
- Incoming and outgoing vehicles (both private and commercial) should be inspected for unusual cargo or activity.
- Parking areas for visitors or guests should be situated at a safe distance from the main facility. Vehicles of authorized visitors, guests and employees should be clearly marked (placards, decals, etc.).
- Truck deliveries should be verified against a roster of scheduled deliveries. Unscheduled deliveries should be held outside the plant premises, if possible, pending verification of shipper and cargo.

## **INSIDE SECURITY**

### **GENERAL INSIDE SECURITY**

- Restricted areas inside the plant should be clearly marked and secured.
- Access to central controls for airflow, water systems, electricity and gas should be restricted and controlled.

- Updated plant layout schematics should be available at strategic and secured locations in the plant.
- Airflow systems should include a provision for immediate isolation of contaminated areas or rooms.
- Emergency alert systems should be fully operational and tested, and locations of controls should be clearly marked.
- Access to in-plant laboratory facilities should be strictly controlled. Comprehensive and validated security and disposal procedures should be in place, particularly for the control of reagents, hazardous materials and live cultures of pathogenic bacteria.
- Visitors, guests and other non-plant employees (contractors, salespeople, truck drivers, etc.) should be restricted to non-product areas unless accompanied by an authorized plant representative.
- Computer data systems should be protected using passwords, network firewalls and effective and current virus detection systems.

## **SLAUGHTER AND PROCESSING SECURITY**

- Procedures should be in place to monitor the operation of pieces of equipment (blenders, choppers, poultry chill tanks, etc.) to prevent product tampering.
- A program should be in place to ensure the timely identification, segregation and security of all products involved in the event of deliberate product contamination.
- A validated procedure should be in place to ensure the trace-back and trace-forward of all raw materials and finished products.
- Projected and actual use of restricted ingredients should be verified at the end of each day, preferably by someone other than the employee who logs the ingredient.
- Returned goods should be examined for evidence of possible tampering before salvage or use in rework. Records should be kept on the use of all returned goods in rework.
- The integrity of packaging materials of all spices and restricted ingredients (including premixes prepared in the plant) should be verified before use.
- Accurate inventory of finished products should be maintained to allow detection of unexplained additions to or withdrawals from existing stock.
- Access to product production or holding areas should be restricted to plant employees and FSIS inspection personnel only.
- Plants should use a system that ensures clear identification of personnel to their specific functions (e.g., colored garb).
- An updated daily or shift roster of plant personnel should be maintained and distributed to plant supervisors.

## **STORAGE SECURITY**

- Controlled access should be maintained for all product and ingredient storage areas. An access log may be maintained.
- Security inspection of all storage facilities (including temporary storage vehicles) should be performed regularly, and the results logged.
- A daily inventory of hazardous chemicals or other products should be made, and all discrepancies should be investigated immediately.
- Hazardous chemical storage areas or rooms should be secured and isolated from other parts of the plant. In addition, they should be constructed and safely vented in accordance with national or local building codes.

## **SHIPPING AND RECEIVING SECURITY**

- All outgoing shipments should be sealed with tamper-proof, numbered seals that are included on the shipping documents.
- Establishments should require that incoming shipments be sealed with tamper-proof, numbered seals, and that the seal numbers be shown on the shipping documents for verification prior to entry to the plant.
- Shipping documents with suspicious alterations should be thoroughly investigated.
- All trailers on the premises should be locked and sealed when not being loaded or unloaded.
- A policy for off-hour deliveries should be established to ensure prior notice of such deliveries and require the presence of an authorized individual to verify and receive the shipment.
- Packaging integrity of all incoming shipments should be examined at the receiving dock for evidence of tampering.
- Advance notification (by phone, e-mail, fax) should be required from suppliers for all incoming deliveries. Notification should include pertinent details about the shipment, including the name of the driver.
- The FSIS Inspector-in-Charge should be notified immediately when animals with unusual behavior and symptoms are received at the plant.
- Loading docks should be secured to avoid unverified or unauthorized deliveries.
- The integrity of food security measures should be a significant consideration in the selection of suppliers of meat and non-meat ingredients, compressed gas, packaging materials and labels.

## **WATER AND ICE SUPPLY SECURITY**

- Outside access to wells, potable water tanks and ice-making equipment should be secured from unauthorized entry.
- In-plant ice-making equipment and ice storage facilities should have controlled access.
- Potable and non-potable water lines in food processing areas should be inspected periodically for possible tampering.
- The plant should arrange for immediate notification by local health officials in the event the potability of the public water supply is compromised.

## **MAIL HANDLING SECURITY**

- Mail handling activity should be done in a separate room or facility, away from in-plant food production/processing operations, if possible.
- Mail handlers should be trained to recognize and handle suspicious pieces of mail using U.S. Post Office guidelines

## **PERSONNEL SECURITY**

- A system of positive identification/recognition of all plant employees should be in place.
- Procedures should be established for controlled entry of employees into the plant during both working and non-working hours.
- New hires (seasonal, temporary, permanent, and contract workers) should be subjected to background checks before hiring.
- Orientation training on security procedures should be given to all plant employees.
- The plant should establish and enforce a policy on what personal items may and may not be allowed inside the plant and within production areas.

### **May 2002**

- In the event of a biosecurity-related emergency, first contact your local law enforcement authority.
- If you have questions or need clarification about the guidelines, contact the FSIS Technical Service Center at: 1-800-233-3935.
- For additional copies of the guidelines, go to: [www.fsis.usda.gov](http://www.fsis.usda.gov)

# ***Pautas de Seguridad para los Procesadores de Alimentos*** **(FSIS Security Guidelines For Food Processors)**

[http://www.fsis.usda.gov/oa/topics/securityguide\\_sp.htm](http://www.fsis.usda.gov/oa/topics/securityguide_sp.htm) Accessed: **August 2, 2002**

**Food Safety and Inspection Service  
United States Department of Agriculture  
Washington, D.C. 20250-3700**

**Updated July 12, 2002**

*Estimado Propietario o Gerente del Establecimiento:*

El Servicio de Inocuidad e Inspección de los Alimentos (FSIS por sus siglas en inglés) ha preparado el documento adjunto, ***Pautas de Seguridad para los Procesadores de Alimentos***, con la finalidad de ayudar a las plantas procesadoras de carne, aves y productos de huevo, sujetas a inspección federal o estatal, en la formulación de medidas encaminadas a reforzar su protección contra el bioterrorismo. El FSIS reconoce que los directivos de las plantas supeditadas a inspección pueden tener conocimiento de reglamentos elaborados por otras organizaciones o agencias del gobierno o del sector privado y es probable que ya los estén adoptando. Sin embargo, los negocios o plantas que no tienen acceso a asesoramiento especializado en materia de planificación de medidas de seguridad, hallarán esta guía muy útil.

Estas pautas fueron elaboradas primero con el propósito de satisfacer las necesidades propias de las plantas procesadoras de alimentos (de carne, aves y productos de huevo) y segundo con la idea de que sean fáciles de entender y de ser adaptadas por los oficiales encargados de las plantas. Si bien la adopción de estas pautas es voluntaria, y aunque las plantas podrían adoptar otras normas sugeridas por distintas fuentes, es muy importante que todas las empresas del sector alimentario tomen las medidas necesarias para asegurar la protección de sus operaciones.

La intención del FSIS es de proveer estas pautas a nuestros empleados que trabajan en los establecimientos, los cuales prestarán asistencia a las plantas que soliciten mayor información o asesoramiento. Sin embargo, los inspectores no exigirán la adopción de ninguna de las pautas recomendadas.

FSIS se propone continuar trabajando para mejorar el asesoramiento prestado a los establecimientos que producen y distribuyen alimentos regulados por el Departamento de Agricultura de los Estados Unidos (USDA), y también seguir cooperando con la Administración de Drogas y Alimentos (FDA) y otras agencias para ofrecer pautas para el transporte, almacenamiento y manipulación de alimentos. Proveer pautas para los establecimientos sujetos a inspección es el primer paso, pero reconocemos la necesidad de contar con protección desde la producción agrícola hasta la mesa del consumidor. Agradeceremos sus comentarios mientras continuamos afianzando estas medidas de protección. La seguridad de nuestros alimentos y de nuestro sector agrícola requiere un compromiso de todas las partes interesadas, a saber, gobierno federal, estatal y local, y del sector privado. Tenemos confianza en que esta guía será útil para dar un enfoque específico a la responsabilidad que compartimos.

Si usted tiene preguntas o comentarios, por favor comuníquese con nuestro Centro de Servicio Técnico al teléfono 1-800-233-3935.

Sinceramente,

*Linda Swacina*

Administrador Asistente de Servicios de Personal

# **Pautas de Seguridad del FSIS para los Procesadores de Alimentos**

## **PLAN DE MANEJO DE LA SEGURIDAD DE LOS ALIMENTOS**

- Cada planta o compañía debería formar un equipo responsable del manejo de la seguridad alimentaria y nombrar a un coordinador de dicha gestión. A cada miembro se le asignará claramente las obligaciones que le incumben.
- Se debería elaborar y poner en práctica un plan de seguridad alimentaria usando principios ya establecidos de manejo de riesgos. El plan debería incluir procedimientos para afrontar amenazas y casos reales de sabotaje, así como métodos de evacuación para cada local.
- Las medidas correctivas tomadas en todos los casos de adulteración intencional de productos deberían garantizar que los productos dañados o potencialmente perjudiciales para la salud, no entren al mercado.
- El plan debería contemplar el retiro inmediato de los productos adulterados, tanto del mercado como de los canales de abastecimiento del consumidor. Asimismo, en el plan se debería especificar la manera apropiada de manipular y eliminar los productos intencionalmente contaminados con agentes químicos o biológicos.
- Se debería establecer una relación con laboratorios de análisis apropiados que puedan prestar asistencia en la investigación de casos de adulteración intencional de productos.
- El plan debería contener los procedimientos a seguir para notificar a las autoridades policiales y de salud pública cuando se reciba una amenaza a la seguridad alimentaria, o cuando haya pruebas evidentes de adulteración intencional de productos.
- En el plan se deberían identificar las entradas designadas especialmente para el ingreso de los socorristas en caso de emergencia.
- El plan debería incluir una lista actualizada de contactos en el gobierno federal, estatal y local encargados de la Seguridad del Territorio Nacional y de funcionarios de salud pública. Dicha lista debería actualizarse regularmente.
- Se debería impartir capacitación a los miembros del equipo de manejo de la seguridad de los alimentos para que se familiaricen con todas las disposiciones del plan. Se deberían llevar a cabo ejercicios de simulación periódicamente. Se debería revisar el plan regularmente y actualizarlo según sea necesario.
- Los oficiales de la planta deberían realizar inspecciones periódicas de seguridad alimentaria con el objeto de verificar si las disposiciones principales del plan están acatándose.
- Se debería estimular a todos los empleados a reportar cualquier señal de posible adulteración intencional de un producto, o de intrusión en el sistema de seguridad alimentaria. Es recomendable

establecer un sistema de recompensa, o estándares de desempeño relacionados con la preocupación por la seguridad alimentaria.

- Todas las amenazas y casos de adulteración intencional de productos deberían ser investigados inmediatamente y denunciados a las autoridades policiales locales y al inspector estatal o del FSIS a cargo de esos asuntos.

- Con antelación, el equipo de manejo de la seguridad alimentaria debería coordinar con los oficiales locales responsables de la Seguridad del Territorio Nacional y las autoridades policiales.

## **SEGURIDAD EXTERNA**

- El perímetro de la planta debería asegurarse para prevenir los ingresos sin autorización. Se deberían colocar letreros que anuncien que está "Prohibida la Entrada".

- El perímetro de la planta debería estar vigilado a fin de detectar cualquier indicio de actividades sospechosas o de entradas sin autorización.

- La iluminación exterior de la planta debería ser lo suficientemente potente como para poder descubrir movimientos extraños.

- Todos los puntos de acceso al establecimiento deberán ser controlados mediante guardianes, alarmas, cámaras y otros equipos de seguridad que se ajusten a los reglamentos de los códigos locales y nacionales contra incendios y de seguridad.

- Las salidas de emergencia deberán estar equipadas con sistemas de alarma y de cerradura automática que sólo pueden abrirse por dentro.

- Todos los puntos de acceso al establecimiento deberían estar controlados mediante guardianes, alarmas, cámaras u otros equipos de seguridad que se ajusten a los reglamentos de los códigos locales y nacionales contra incendios y de seguridad.

- Las salidas de emergencia deberían estar equipadas con sistemas de alarma y de cerradura automática que sólo puedan abrirse por dentro.

- Todas las puertas y ventanas, las aberturas en el tejado o de los sistemas de ventilación, los carros de remolque, los vagones de ferrocarril y tanques de almacenamiento deberían estar siempre cerrados (por ejemplo, con llave, sellos, sensores).

- Los tanques colocados en el exterior, donde se almacenan materiales peligrosos o agua potable, deberían ser vigilados y protegidos contra todo acceso no autorizado.

- La oficina de seguridad debería mantener una lista al día del personal que tiene ingreso autorizado al establecimiento, con o sin restricciones.

- Se debería controlar la entrada a la planta requiriendo una identificación válida (por ejemplo presentar una tarjeta de identificación con fotografía, firmar un registro de entrada y salida, ya sea en la oficina de seguridad o en la recepción, etc.).

- Se deberían inspeccionar los vehículos (particulares y comerciales) que entren o salgan para controlar cualquier cargamento extraño o maniobra rara.
- El estacionamiento para visitas e invitados debería estar situado a una distancia segura del edificio principal. Los vehículos de los visitantes, invitados y empleados autorizados deberían estar marcados claramente (con carteles, calcomanías, etc.).
- Se debería comprobar si los camiones de reparto están autorizados mediante una lista de entregas programadas. Los repartos que no estén programados deberían detenerse fuera del perímetro del establecimiento, de ser posible, hasta que se verifique el remitente y la carga.

## **SEGURIDAD INTERNA**

### **SEGURIDAD GENERAL INTERNA**

- Las áreas restringidas dentro de la planta deberían estar claramente marcadas y protegidas.
- El acceso a los controles de la entrada de aire, sistemas de agua, electricidad y gas debería ser restringido y mantenerse controlado.
- Planos esquemáticos vigentes (o actuales) de la planta deberían estar disponibles en lugares estratégicos y seguros del establecimiento.
- El diseño de los sistemas de entrada de aire debería incluir un plan de emergencia para el aislamiento inmediato de las áreas o habitaciones contaminadas.
- Los sistemas de alerta para casos de emergencia deberían haberse probado y funcionar perfectamente. La ubicación de los dispositivos de control debería estar claramente señalada.
- Las entradas a los laboratorios de la planta deberían estar estrictamente vigiladas. Procedimientos exhaustivos y certificados que regulen la seguridad y la eliminación de residuos deberían estar vigentes, especialmente en lo concerniente al control de sustancias reactivas, materiales peligrosos y cultivos vivos de bacterias patógenas.
- Las visitas, invitados y otras personas que no sean empleados de la planta (contratistas, vendedores, conductores de camiones, etc.) deberían tener acceso únicamente a las áreas de la planta que no se ocupan de la producción de alimentos, salvo que estén acompañados por un representante autorizado de la planta.
- Los sistemas computarizados deberían estar protegidos mediante contraseñas, filtros de entrada de la red, y programas actualizados de antivirus.

## **SEGURIDAD DE LOS MATADEROS Y DE LAS LINEAS DE PRODUCCION**

- Se deberían implementar procedimientos para vigilar el funcionamiento de todo el equipo (cortadoras, mezcladoras, tanques de enfriamiento para aves, etc.) y así prevenir la adulteración intencional de los productos.

- Se debería instituir un programa dirigido a asegurar la identificación, separación y seguridad a tiempo de todos los productos que hayan sido objeto de adulteración intencional.
- Se debería establecer un procedimiento validado para rastrear efectivamente todos los componentes crudos y los productos terminados.
- Al final de cada día se debería verificar el uso previsto y la utilización efectiva de los ingredientes restringidos. Tal comprobación debería hacerla, preferentemente, una persona distinta del empleado que anota los ingredientes.
- Antes de ser recuperados o reutilizados, se debería examinar los productos devueltos, a fin de detectar cualquier adulteración. Se debería llevar un registro de los productos devueltos que se vuelven a utilizar.
- La integridad de los materiales de empaque en todas las especias y otros ingredientes restringidos debería ser verificada antes de su uso. Esto incluye las mezclas preparadas de antemano en la planta.
- Se debería mantener un inventario exacto de los productos terminados para permitir la detección inmediata de cualquier aumento o disminución inexplicable en la cantidad almacenada.
- Únicamente los empleados de la fábrica y los inspectores del FSIS deberían tener libre acceso a las zonas de elaboración o de almacenamiento de los productos.
- Las plantas deberían emplear un sistema que permita la identificación visible del personal, conforme a sus funciones específicas (por ejemplo, vestimenta de distinto color).
- Diariamente, se debería actualizar una lista de los empleados de la planta o del personal de turno, y distribuirse entre los supervisores del establecimiento.

•

## **SEGURIDAD DEL ALMACENAMIENTO**

- Se debería mantener controlado el acceso a todos los lugares de almacenamiento de los productos y ingredientes, y mantenerse un registro de acceso a estos lugares.
- Se deberían efectuar inspecciones de seguridad de manera regular en todos los almacenes (incluyendo vehículos de almacenamiento provisional), llevando un registro de los resultados de dichas inspecciones.
- Se debería mantener un inventario diario de las sustancias químicas peligrosas y de otros productos similares. Toda discrepancia debería ser investigada inmediatamente.
- Las áreas o cuartos donde se almacenan sustancias químicas peligrosas deberían asegurarse y mantenerse aislados de otras áreas de la planta. Estos almacenes deberían estar contruidos y ventilados de acuerdo con los códigos de construcción locales y nacionales.

## **SEGURIDAD DE LAS AREAS DE EXPEDICION Y RECEPCION DE PRODUCTOS**

- Todos los cargamentos que salgan de la planta deberían estar sellados, y los sellos estar enumerados y a prueba de alteraciones. El número asignado debería constar en los documentos de embarque.
- Los establecimientos deberían requerir que cualquier cargamento que reciban venga sellado, con los sellos enumerados y a prueba de alteraciones, y que el número de los sellos figure en los documentos de envío de manera que pueda ser verificado antes de su ingreso.
- Los documentos de envío que presenten alteraciones sospechosas deberían ser examinados meticulosamente.
- Todos los remolques que se encuentren dentro del recinto de la planta deberían mantenerse cerrados y sellados cuando no estén siendo cargados o descargados.
- Se debería establecer un reglamento para entregas fuera de horario con el fin de asegurar que dichos envíos sean notificados con antelación, y que una persona autorizada esté presente para verificarlos y recibirlos.
- En la zona de recepción se debería comprobar meticulosamente si las envolturas de los envíos recibidos están intactas, con la finalidad de detectar cualquier señal que indique que el producto pudo haber sido adulterado.
- Se debería exigir a los abastecedores que comuniquen de antemano (por facsímil, teléfono o correo electrónico) todas las entregas. En el aviso de entrega deberían suministrarse todos los detalles concernientes al cargamento, incluido el nombre del conductor del camión.
- Se debería informar inmediatamente al inspector del FSIS correspondiente cuando lleguen al establecimiento animales de comportamiento extraño o con síntomas anormales.
- Las zonas de carga deberían vigilarse para evitar que se hagan entregas no verificadas o no autorizadas.
- La integridad de las medidas de seguridad alimentaria debería ser uno de los criterios de mayor consideración al seleccionar los abastecedores de carne y otros ingredientes no cárnicos, de gas embotellado, etiquetas, o materiales para envolturas.

## **SEGURIDAD DE LAS FUENTES DE AGUA Y DE HIELO**

- El acceso exterior a los pozos y tanques de agua potable y a las máquinas de hielo se debería mantener resguardado contra el ingreso no autorizado.
- Debería controlarse al acceso a las máquinas de hielo y a los locales donde se almacena el hielo que se encuentren dentro del recinto de la planta.
- Las tuberías de agua potable y no potable instaladas dentro de las áreas de elaboración de alimentos deberían inspeccionarse periódicamente con el objeto de detectar cualquier intento de sabotaje.

Los directivos de la planta deberían hacer los arreglos necesarios con las autoridades de salud pública locales a fin de recibir notificación inmediata en caso de que la potabilidad del agua para consumo humano esté en peligro.

•

## **SEGURIDAD DEL SERVICIO POSTAL**

- De ser posible, las tareas relacionadas con la recepción, distribución y envío de correo se deberían llevar a cabo en una instalación o cuarto separado, lejos de los lugares de la planta donde se efectúan las operaciones de elaboración de los alimentos.
- Se debería capacitar a los empleados encargados del correo para que puedan identificar cartas o paquetes sospechosos, y conozcan la manera de manipularlos de acuerdo a las pautas elaboradas por el Servicio Postal de los Estados Unidos.

## **SEGURIDAD DEL PERSONAL**

- Se debería establecer un sistema de identificación o reconocimiento de todos los empleados de la fábrica.
- Se deberían establecer procedimientos para controlar la entrada y la salida de empleados durante las horas regulares de trabajo y fuera de esas horas.
- Antes de contratar personal nuevo (empleados ocasionales, permanentes o contractuales) deberían investigarse sus antecedentes.
- Todos los empleados de la planta deberían recibir capacitación sobre procedimientos de seguridad.
- Los directivos de la planta deberían instituir y vigilar el cumplimiento de pautas sobre que objetos personales están permitidos o prohibidos en el interior de la fábrica y dentro de las áreas de producción.
- **En caso de producirse una emergencia relacionada con la bioseguridad, póngase en contacto primero con las autoridades policiales locales.**
  - **Si usted tiene preguntas o necesita alguna aclaración respecto a estas pautas de seguridad llame al Centro de Servicios Técnicos del Servicio de Inocuidad e Inspección de los Ali-**

**Thank you to Lyadira Figueroa  
of the Division of Food and Drugs  
for her assistance editing,  
*Pautas de Seguridad del FSIS  
para los Procesadores de Alimentos***

# Keeping Food Safe During An Emergency

<http://www.fsis.usda.gov/OA/pubs/pofeature.htm> Accessed: August 2, 2002

**Food Safety and Inspection Service  
United States Department of Agriculture  
Washington, D.C. 20250-3700  
Consumer Education and Information  
April 2002**

Did you know that a flood, fire, national disaster, or the loss of power from high winds, snow, or ice could jeopardize the safety of your food? Knowing how to determine if food is safe and how to keep food safe will help minimize the potential loss of food and reduce the risk of foodborne illness. This fact sheet will help you make the right decisions for keeping your family safe during an emergency.

## **ABCD's of Keeping Food Safe in an Emergency**

Always keep meat, poultry, fish, and eggs refrigerated at or below 40 °F and frozen food at or below 0 °F. This may be difficult when the power is out. **Keep the refrigerator and freezer doors closed as much as possible to maintain the cold temperature.** The refrigerator will keep food safely cold for about 4 hours if it is unopened. A full freezer will hold the temperature for approximately 48 hours (24 hours if it is half full) if the door remains closed. Obtain dry or block ice to keep your refrigerator as cold as possible if the power is going to be out for a prolonged period of time. Fifty pounds of dry ice should hold a 18-cubic foot full freezer for 2 days. Plan ahead and know where dry ice and block ice can be purchased.

Be prepared for an emergency by having items on hand that don't require refrigeration and can be eaten cold or heated on the outdoor grill. Shelf-stable food, boxed or canned milk, water, and canned goods should be part of a planned emergency food supply. Make sure you have ready-to-use baby formula for infants and pet food. Remember to use these items and replace them from time to time. Be sure to keep a hand-held can opener for an emergency.

Consider what you can do ahead of time to store your food safely in an emergency. If you live in a location that could be affected by a flood, plan your food storage on shelves that will be safely out of the way of contaminated water. Coolers are a great help for keeping food cold if the power will be out for more than 4 hours—have a couple on hand along with frozen gel packs. When your freezer is not full, keep items close together—this helps the food stay cold longer.

Digital, dial, or instant-read food thermometers and appliance thermometers will help you know if the food is at safe temperatures. Keep appliance thermometers in the refrigerator and freezer at all times. When the power is out, an appliance thermometer will always indicate the temperature in the refrigerator and freezer no matter how long the power has been out. The refrigerator temperature should be 40 °F or below; the freezer, 0 °F or lower. If you're not sure a particular food is cold enough, take its temperature with a food thermometer.

## Frequently Asked Questions:

**Q. Flood waters covered our food stored on shelves and in cabinets. What can I keep and what should I throw out? How should I clean my dishes and pots and pans?**

**A.** Discard all food that came in contact with flood waters **including canned goods**. It is impossible to know if containers were damaged and the seal compromised. Discard wooden cutting boards, plastic utensils, baby bottle nipples, and pacifiers. There is no way to safely clean them if they have come in contact with contaminated flood waters. Thoroughly wash metal pans, ceramic dishes, and utensils with hot soapy water and sanitize by boiling them in clean water or by immersing them for 15 minutes in a solution of 1 teaspoon of chlorine bleach per quart of water.

**Q. My home was flooded and I am worried about the safety of the drinking water. What should I do?**

**A.** Drink only approved or chlorinated water. Consider all water from wells, cisterns, and other delivery systems in the disaster area unsafe until tested. Purchase bottled water, if necessary, until you are certain that your water supply is safe. Keep a 3-day supply of water or a minimum of 3 gallons of water per person.

**Q. We had a fire in our home and I am worried about what food I can keep and what to throw away.**

**A.** Discard food that has been near a fire. Food exposed to fire can be damaged by the heat of the fire, smoke fumes, and chemicals used to fight the fire .

Food in cans or jars may appear to be okay, but the heat from a fire can activate food spoilage bacteria. If the heat is extreme, the cans or jars themselves can split or rupture, rendering the food unsafe.

One of the most dangerous elements of a fire is sometimes not the fire itself, but toxic fumes released from burning materials. Discard any raw food or food in permeable packaging – cardboard, plastic wrap, screw-topped jars, bottles, etc.— stored outside the refrigerator. Food stored in refrigerators or freezers can also become contaminated by fumes. The refrigerator seal isn't airtight and fumes can get inside.

Chemicals used to fight the fire contain toxic materials and can contaminate food and cookware. Food that is exposed to chemicals should be thrown away – the chemicals cannot be washed off the food. This includes food stored at room temperature, such as fruits and vegetables, as well as food stored in permeable containers like cardboard and screw-topped jars and bottles. Cookware exposed to fire-fighting chemicals can be decontaminated by washing in soap and hot water. Then submerge for 15 minutes in a solution of 1 teaspoon chlorine bleach per quart of water.

**Q. A snowstorm knocked down the power lines, can I put the food from the refrigerator and freezer out in the snow?**

**A.** No, frozen food can thaw if it is exposed to the sun's rays even when the temperature is very cold. Refrigerated food may become too warm and foodborne bacteria could grow. The outside temperature could vary hour by hour and the temperature outside will not protect refrigerated and frozen food. Additionally, perishable items could be exposed to unsanitary conditions or to

animals. Animals may harbor bacteria or disease; never consume food that has come in contact with an animal.

Rather than putting the food outside, consider taking advantage of the cold temperatures by making ice. Fill buckets, empty milk cartons or cans with water and leave them outside to freeze. Then put the homemade ice in your refrigerator, freezer, or coolers.

**Q. Some of my food in the freezer started to thaw or had thawed when the power came back on. Is the food safe? How long will the food in the refrigerator be safe with the power off?**

**A. Never taste food to determine its safety!** You will have to evaluate each item separately. If an appliance thermometer was kept in the freezer, read the temperature when the power comes back on. If the appliance thermometer stored in the freezer reads 40 °F or below, the food is safe and may be refrozen. If a thermometer has not been kept in the freezer, check each package of food to determine the safety. Remember you can't rely on appearance or odor. If the food still contains ice crystals or is 40 °F or below, it is safe to refreeze.

Refrigerated food should be safe as long as power is out no more than 4 hours. Keep the door closed as much as possible. Discard any perishable food (such as meat, poultry, fish, eggs, and leftovers) that have been above 40 °F for 2 hours.

**Q. May I refreeze the food in the freezer if it thawed or partially thawed?**

**A.** Yes, the food may be safely refrozen if the food still contains ice crystals or is at 40 °F or below. You will have to evaluate each item separately. Be sure to discard any items in either the freezer or the refrigerator that have come into contact with raw meat juices. Partial thawing and refreezing may reduce the quality of some food, but the food will remain safe to eat. See the attached charts for specific recommendations.

## REFRIGERATOR FOODS

### When to Save and When to Throw It Out

**General Rule: As long as the power has been out less than 2 hours, all foods will be safe.**

FOOD	Held above 40 °F for over 2 hours
<b>MEAT, POULTRY, SEAFOOD</b>	
Fresh or leftover meat, poultry, fish, or seafood	Discard
Thawing meat or poultry	Discard
Meat, tuna, shrimp, chicken, or egg salad	Discard
Gravy, stuffing	Discard
Lunchmeats, hot dogs, bacon, sausage, dried beef	Discard
Pizza – with any topping	Discard
Canned hams labeled "Keep Refrigerated"	Discard
Canned meats, opened	Discard

<b>FOOD</b>	<b>Held above 40 °F for over 2 hours</b>
<b>CHEESE</b> Soft Cheeses: blue/bleu, Roquefort, brie, Camembert, colby, cottage, cream, Edam, Monterey Jack, ricotta, mozzarella, Muenster, Neufchatel	Discard
Hard Cheeses: cheddar, Swiss, Parmesan, provolone, Romano	Safe
Processed Cheeses	Safe
Shredded Cheeses	Discard
Low-fat Cheeses	Discard
Grated Parmesan, Romano, or combination (in can or jar)	Safe
<b>DAIRY</b> Milk, cream, sour cream, buttermilk, evaporated milk, yogurt	Discard
Butter, margarine	Safe
Baby formula, opened	Discard
<b>EGGS</b> Fresh eggs, hard-cooked in shell, egg dishes, egg products	Discard
Custards and puddings	Discard
<b>CASSEROLES, SOUPS, STEWS</b>	Discard
<b>FRUITS</b> Fresh fruits, cut	Discard
Fruit juices, opened	Safe
Canned fruits, opened	Safe
Fresh fruits, coconut, raisins, dried fruits, candied fruits, dates	Safe
<b>SAUCES, SPREADS, JAMS</b> Opened mayonnaise, tartar sauce, horseradish	Discard if above 50 °F for over 8 hrs.
Peanut butter	Safe
Jelly; relish; taco, barbecue & soy sauce; mustard; catsup; olives	Safe
Worcestershire sauce	Discard
Fish sauces (oyster sauce)	Discard
Hoisin sauce	Discard
Opened vinegar-based dressings	Safe
Opened creamy-based dressings	Discard
Spaghetti sauce, opened jar	Discard

<b>FOOD</b>	<b>Held above 40 °F for over 2 hours</b>
<b>BREAD, CAKES, COOKIES, PASTA</b> Bread, rolls, cakes, muffins, quick breads	Safe
Refrigerator biscuits, rolls, cookie dough	Discard
Cooked pasta, spaghetti	Discard
Pasta salads with mayonnaise or vinaigrette	Discard
Fresh pasta	Discard
Cheesecake	Discard
Breakfast foods – waffles, pancakes, bagels	Safe
<b>PIES, PASTRY</b> Pastries, cream filled	Discard
Pies – custard, cheese filled, or chiffon	Discard
Pies, fruit	Safe
<b>VEGETABLES</b> Fresh mushrooms, herbs, spices	Safe
Greens, pre-cut, pre-washed, packaged	Discard
Vegetables, raw	Safe
Vegetables, cooked	Discard
Vegetable juice, opened	Discard
Baked potatoes	Discard
Commercial garlic in oil	Discard
Potato Salad	Discard

# FROZEN FOOD

## When to Save and When To Throw It Out

<b>FOOD</b>	<b>Still contains ice crystals and feels as cold as if refrigerated</b>	<b>Thawed. Held above 40 °F for over 2 hours</b>
<b>MEAT, POULTRY, SEAFOOD</b> Beef, veal, lamb, pork, and ground meats	Refreeze	Discard
Poultry and ground poultry	Refreeze	Discard
Variety meats (liver, kidney, heart, chitterlings)	Refreeze	Discard
Casseroles, stews, soups	Refreeze	Discard
Fish, shellfish, breaded seafood products	Refreeze. However, there will be some texture and flavor loss.	Discard
<b>DAIRY</b> Milk	Refreeze. May lose some texture.	Discard
Eggs (out of shell) and egg products	Refreeze	Discard
Ice cream, frozen yogurt	Discard	Discard
Cheese (soft and semi-soft)	Refreeze. May lose some texture.	Discard
Hard cheeses	Refreeze	Refreeze
Shredded cheeses	Refreeze	Discard
Casseroles containing milk, cream, eggs, soft cheeses	Refreeze	Discard
Cheesecake	Refreeze	Discard
<b>FRUITS</b> Juices	Refreeze	Refreeze. Discard if mold, yeasty smell, or sliminess develops.
Home or commercially packaged	Refreeze. Will change texture and flavor.	Refreeze. Discard if mold, yeasty smell, or sliminess develops.

<b>FROZEN FOOD</b> <b>When to Save and When To Throw It Out</b>		
<b>FOOD</b>	<b>Still contains ice crystals and feels as cold as if refrigerated</b>	<b>Thawed. Held above 40 °F for over 2 hours</b>
<b>VEGETABLES</b> Juices	Refreeze	Discard after held above 40 °F for 6 hours.
Home or commercially packaged or blanched	Refreeze. May suffer texture and flavor loss.	Discard after held above 40 °F for 6 hours.
<b>BREADS, PASTRIES</b> Breads, rolls, muffins, cakes (without custard fillings)	Refreeze	Refreeze
Cakes, pies, pastries with custard or cheese filling	Refreeze	Discard
Pie crusts, commercial and homemade bread dough	Refreeze. Some quality loss may occur.	Refreeze. Quality loss is considerable.
<b>OTHER</b> Casseroles – pasta, rice based	Refreeze	Discard
Flour, cornmeal, nuts	Refreeze	Refreeze
Breakfast items – waffles, pancakes, bagels	Refreeze	Refreeze
Frozen meal, entree, specialty items (pizza, sausage and biscuit, meat pie, convenience foods)	Refreeze	Discard

For additional food safety information about meat, poultry, or egg products, call the toll-free USDA Meat and Poultry Hotline at 1 (800) 535-4555; Washington, DC area, (202) 720-3333; for the hearing-impaired (TTY) 1 (800) 256-7072. The Hotline is staffed by food safety experts weekdays from 10 a.m. to 4 p.m. Eastern time. Food safety recordings can be heard 24 hours a day using a touch-tone phone.

The media may contact the USDA Meat and Poultry Hotline at (202) 720-5604. Information is also available from the FSIS Web site: <http://www.fsis.usda.gov>

**For Further Information Contact:**

FSIS Food Safety Education Staff

Meat and Poultry Hotline:

- 1-800-535-4555 (Tollfree Nationwide)
- (202) 720-3333 (Washington, DC area)
- 1-800-256-7072 (TDD/TTY)
- E-mail: [mph hotline.fsis@usda.gov](mailto:mph hotline.fsis@usda.gov)

# Food Security Notes

[illegible]

# Outbreak of Acute Gastroenteritis Associated with Norwalk-Like Viruses Among British Military Personnel --- Afghanistan, May 2002

MMWR June 7, 2002/51(22);477-479

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5122a1.htm> Accessed: August 1, 2002

In the United States, Norwalk-like viruses (NLVs) cause an estimated 23 million episodes of illness, 50,000 hospitalizations, and 300 deaths each year. NLVs can be transmitted by fecally contaminated food and water (1) and by direct person-to-person contact or through droplets of infected persons. Outbreaks of NLV-associated gastrointestinal illness are common in military settings. During May 13 - 19, 2002, a total of 29 British soldiers and staff of a field hospital in Afghanistan became acutely ill after a short incubation period with vomiting, diarrhea, and fever. This report summarizes the investigation of this outbreak and underscores the importance of the diagnostic capacity for NLVs.

The first three patients presented with severe acute illness characterized by headache, neck stiffness, photophobia, obtundation, and gastrointestinal symptoms, which made the initial diagnosis elusive. The third patient's illness was complicated by disseminated intravascular coagulation. Two of these patients required ventilatory support in the field hospital's intensive care unit. All bacteriologic studies performed at the field hospital's laboratory were negative. Because the cause of the illness was unknown, the field hospital was closed to all but patients with gastrointestinal symptoms. Because of the field conditions at the base and the severity of illness in the initial patients, one patient was evacuated to a U.S. military hospital in Germany, and 10 were evacuated to England. Two medical staff who treated the patients on the flight to England and a third contact at the hospital in England subsequently developed gastroenteritis; two of these persons were hospitalized for several days. All patients recovered rapidly and were discharged. The field hospital has since reopened with enhanced infection-control precautions.

In England, fecal specimens were tested for NLVs by electron microscopy (EM), a new antigen-capture enzyme-linked immunosorbent assay (ELISA), and reverse transcription-polymerase chain reaction (RT-PCR). By EM, clumps of small, round-structured viruses were observed and considered to be consistent with NLVs. This finding was confirmed by ELISA and RT-PCR in specimens from five patients. Partial sequence analysis of the polymerase gene identified the virus as belonging to genogroup II (2), the most common NLV genogroup in the United Kingdom and the United States (3).

**Reported by:** D Brown, J Gray, Central Public Health Lab, Public Health Laboratory Svc; P MacDonald, A Green, Surgeon General's Dept, Ministry of Defense; D Morgan, Communicable Diseases Surveillance Centre, Public Health Lab Svc, United Kingdom. G Christopher, Landstuhl Regional Medical Center, Landstuhl-Kirchberg, Germany. R Glass, Div of Viral and Rickettsial Diseases; R Turcios, EIS Officer, CDC.

## Editorial Note:

Outbreaks of NLV-associated gastrointestinal illness are common, particularly in military deployments. NLVs were the most common cause of disability among soldiers in Operations Desert Storm and Desert Shield, have caused outbreaks aboard aircraft carriers (4), and have been a common problem in the Israeli military (5). NLVs are extremely contagious because of their low infectious dose (<100 viral particles), prolonged asymptomatic shedding (up to 2 weeks after recovery), ability to resist chlorination (10 ppm chlorine), and stability in the environment (stable with freezing and at 140° F [60° C]). Secondary cases and nosocomial spread are common (3), although the risk for NLV infection in the health-care setting can be minimized through the use of appropriate infection-control practices (6,7). NLV gastroenteritis has several distinguishing characteristics, including diarrhea, vomiting, a

short duration of illness (1-3 days), and a short incubation period (24-48 hours). The illness is generally mild, but it can cause severe disease with associated dehydration and electrolyte imbalance that might require hospitalization and aggressive treatment with intravenous fluids. Severe illness with NLVs has been associated with group O blood phenotype (8).

The diagnosis of NLVs from stool specimens is difficult and depends on the identification of the viral RNA by RT-PCR, direct visualization of the viral particles by EM, and/or evidence of a specific antibody response in acute- and convalescent-phase serum specimens (3). Further characterization of the NLV into genogroups is possible by sequence analysis at reference laboratories. In the United States, detection by PCR is limited to some state health department and reference laboratories. Health-care providers generally consider the diagnosis on clinical grounds without seeking laboratory confirmation. As a result, many more outbreaks probably occur, but attribution to NLVs has been infrequent because of the difficulty of diagnosis. Simpler, less time- and labor-intensive diagnostic methods are under development. New antigen-capture assays, such as the ELISA used in this outbreak investigation, are being tested in Japan and Europe but have not yet been evaluated fully in the U.S.

In this outbreak, the inability to identify an etiologic agent promptly and the unusual severity and atypical presentation of disease in the initial cases resulted in the illness being termed a "mystery infection." This uncertainty led to the air evacuation of ill soldiers, during which secondary spread of the infection to health-care providers aboard one of the military flights occurred. The diagnosis was ultimately made in England, where EM and the new ELISA identified the etiologic agent as an NLV. Confirmation and characterization of the virus as a genogroup II strain was obtained by PCR and sequence analysis. Field laboratory capacity for NLV diagnosis might have given on-site health-care providers information useful for limiting secondary spread of illness more effectively and allayed the fear and anxiety associated with the label of "mystery infection." The same observation can be made for most acute gastroenteritis outbreaks in the United States that elude an etiologic diagnosis. This outbreak demonstrates that NLV-associated illness occurs commonly and needs to be identified promptly so that patterns of transmission can be identified and interrupted. The development of simple and sensitive detection techniques remains a high priority. When these become available, the true burden of illness can be measured and more effective control measures implemented.

## References

- Mead PS, Slutsker L, Dietz V, et al. Food-related illness and death in the United States. *Emerg Infect Dis* 1999;5:607--25.
- Public Health Laboratory Service. Illness in military personnel in Bagram, Afghanistan. *Commun Dis Rep CDR Weekly* 2002;12. Available at <http://www.phls.co.uk>.
- Glass RI, Noel J, Ando T, et al. The epidemiology of enteric caliciviruses from humans: a reassessment using new diagnostics. *J Infect Dis* 2000;181:S254--S61.
- McCarthy M, Estes MK, Hyams KC. Norwalk-like virus infection in military forces: epidemic potential, sporadic disease, and the future direction of prevention and control efforts. *J Infect Dis* 2000;181: 387--91.
- Cohen D, Monroe SS, Haim M, et al. Norwalk virus gastroenteritis among Israeli soldiers: lack of evidence for flyborne transmission. *Infection* 2002;30:3--6.
- Chadwick PR, Beards G, Brown D, et al. Management of hospital outbreaks of gastroenteritis due to small round structured viruses. *J Hosp Infect* 2000;45:1--10.
- Bolyard EA, Pablan OC, Williams WW, et al. Guideline for infection control in health care personnel. *Am J Infect Control* 1998;26: 289--354.
- Hutson AM, Atmar RL, Graham DY, Estes MK. Norwalk virus infection and disease is associated with ABO histo-blood group type. *J Infect Dis* 2002;185:1335-7.

***Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
Division of Food and Drugs  
Division of Community Sanitation  
305 South Street  
Jamaica Plain, MA 02130***

Telephone:

Division of Food and Drugs: 617-983-6712

Division of Community Sanitation: 617-983-6761

FAX: 617-983-6770

Jane Swift  
Governor

Robert P. Gittens  
Secretary of Health and Human Services

Howard K. Koh, M.D., M.P.H.  
Commissioner of Public Health

Nancy Ridley  
Assistant Commissioner, Bureau of Health Quality Management  
Director, Division of Food and Drugs

Paul J. Tierney  
Director, Food Protection Program  
Division of Food and Drugs

Howard S. Wensley  
Director, Division of Community Sanitation